

**isc Silicon NPN Power Transistor**
**TIP35D**
**DESCRIPTION**

- DC Current Gain-  
:  $h_{FE} = 25(\text{Min}) @ I_C = 1.5\text{A}$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(\text{SUS})} = 120\text{V}(\text{Min})$
- Complement to Type TIP36D
- Current Gain-Bandwidth Product-  
:  $f_T = 3.0\text{MHz}(\text{Min}) @ I_C = 1.0\text{A}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

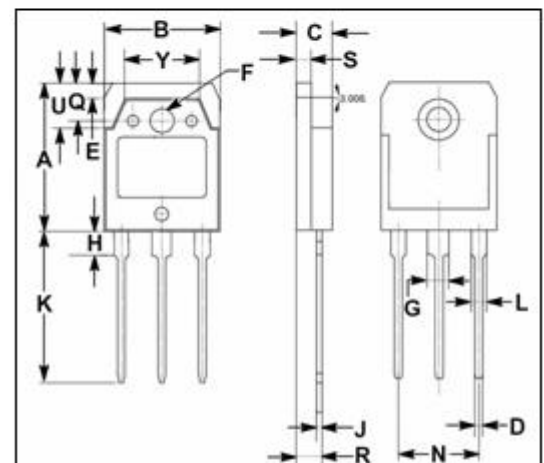
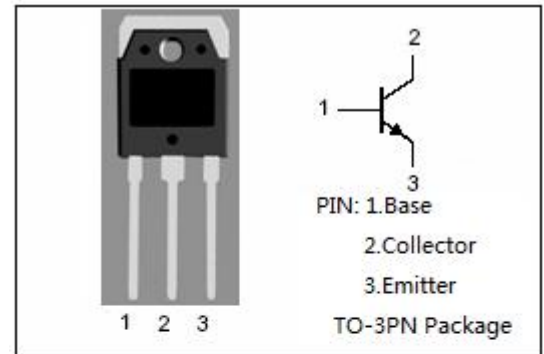
- Designed for use in general purpose power amplifier and switching applications.

**ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	120	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	25	A
$I_{CM}$	Collector Current-peak	40	A
$I_B$	Base Current	5	A
$P_C$	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	125	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ\text{C}/\text{W}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

**isc Silicon NPN Power Transistor****TIP35D****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	120		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=15\text{A}; I_B=3\text{A}$		2.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=25\text{A}; I_B=6.25\text{A}$		5.0	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	$I_C=15\text{A}; V_{CE}=4\text{V}$		2.0	V
$V_{BE(on)-2}$	Base-Emitter On Voltage	$I_C=25\text{A}; V_{CE}=4\text{V}$		4.0	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=90\text{V}; I_B=0$		1.0	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=160\text{V}; I_E=0$		0.7	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$		1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C=1.5\text{A}; V_{CE}=4\text{V}$	25		
$h_{FE-2}$	DC Current Gain	$I_C=15\text{A}; V_{CE}=4\text{V}$	8		

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